

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F.
Larsen

January 1929

Test 162: Minneapolis 27-42

Tractor Museum

University of Nebraska-Lincoln, TractorMuseumArchives@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/tractormuseumlit>



Part of the [Applied Mechanics Commons](#)

Museum, Tractor, "Test 162: Minneapolis 27-42" (1929). *Nebraska Tractor Tests*. 2268.
<https://digitalcommons.unl.edu/tractormuseumlit/2268>

This Article is brought to you for free and open access by the Tractor Test and Power Museum, The Lester F. Larsen at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Tractor Tests by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 162

Dates of test: May 28th to June 11th, 1929.

Name, model and rating of tractor; The Minneapolis 27-42

Manufacturer: The Minneapolis Threshing Co., Hopkins, Minnesota.

B R A K E H O R S E P O W E R T E S T S

	:Crank :shaft	: Fuel Consumption		:Water consumption :per hour gallons		: Temp. : Deg. F.		: Barometer
H.P.	:speed :R.P.M.	: Gals. :H. P. :Lbs. @ : per :hrs. @ :H.P.	:Cool- :In : :ing :fuel :Total :	:Cool- :In : :ing :fuel :Total :	:Cool- :In : :ing :fuel :Total :	:Cool- :In : :ing :fuel :Total :	:Cool- :In : :ing :fuel :Total :	:Inches of :Mercury
	: : : : : :	: hour :gal. :hour : : : :		: : : : : :		: : : : : :		: : : : : :

OPERATING MAXIMUM LOAD TEST. ONE HOUR (99.6% of maximum load)

48.42	:925	:5.133	: 9.43	:0.653	: 0.0	: 0.0	: 0.0	: 187	: 58	: 28.95
-------	------	--------	--------	--------	-------	-------	-------	-------	------	---------

RATED LOAD TEST. ONE HOUR

42.30	:926	:4.240	: 9.98	:0.617	: 0.0	: 0.0	: 0.0	: 165	: 66	: 28.94
-------	------	--------	--------	--------	-------	-------	-------	-------	------	---------

*VARYING LOAD TEST. TWO HOURS

42.33	:926	:4.208	:10.06	:0.612	: 0.0	: 0.0	: 0.0	: 165	: 66	:
1.23	:991.5	:1.490	: 0.83	:7.463	: 0.0	: 0.0	: 0.0	: 165.5	: 67	:
21.83	:952.5	:2.688	: 8.12	:0.759	: 0.0	: 0.0	: 0.0	: 160	: 67	:
46.12	:920	:4.782	: 9.64	:0.639	: 0.0	: 0.0	: 0.0	: 185.5	: 70	:
11.24	:977.5	:2.114	: 5.32	:1.158	: 0.0	: 0.0	: 0.0	: 157	: 70	:
32.30	:940	:3.468	: 9.31	:0.661	: 0.0	: 0.0	: 0.0	: 156	: 69	:
26.29	:949	:3.125	: 8.41	:0.732	: 0.0	: 0.0	: 0.0	: 165	: 68	: 28.94

*20 minute runs. Last line is average for two hours.

D R A W B A R H O R S E P O W E R T E S T S

	:Draw :Bar	:Speed :miles	:Crank :shaft	:Slip :on	: Fuel Consumption		:Water: :used		: Temp. : Air		: Barometer
H. P.	:pull :pounds	:per :hour	:speed :R.P.M.	:drive :wheels	:Gals. :hr. :per :per :H.P. :per	:Gals. :hr. :per :per :H.P. :per	:Gal. :Cool- :Air :ing :med. :		:Cool- :Air :ing :med. :		:Inches of :Mercury
	: : : : : :	: : : : : :	: : : : : :	: : : : : %	:hour :gal. :hour : : : :	:hour :gal. :hour : : : :	:hour :gal. :hour : : : :		: : : : : :		: : : : : :

RATED LOAD TEST. TEN HOURS. High GEAR.

27.79	: 2956	: 3.53	: 926	: 4.78	:4.190	: 6.63	:0.929	: 0.09	: 186	: 94	: 28.45
-------	--------	--------	-------	--------	--------	--------	--------	--------	-------	------	---------

MAXIMUM LOAD TEST

34.30	: 36935	: 3.48	: 926	: 4.72	:---Not Recorded---	: 176	: 76	: 28.75
33.99	: 4918	: 2.59	: 917	: 6.98	:--- " " ---	: 181	: 77	: 28.75

UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 162

BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 10801 Type 4 Cylinder, vertical
 Head "I" Mounting Crosswise
 Bore and stroke: 4-7/8 x 7 in. Rated R.P.M. 925
 Port Dia. Valves: Inlet 2" Exhaust 2"
 Belt pulley: Diam. 15-1/2 in. Face 7-1/2 in. R.P.M. 925
 Magneto: American Bosch Model "ZR4Ed34"
 Carburetor: Stromberg Model "UTR" Size 1-1/2"
 Governor: Own No. Type Fly-ball
 Air Cleaner: Donaldson "Simplex" Type Oiled-fiber
 Lubrication: Pressure & Splash

CHASSIS: Type 4 Wheels Serial No. 9044 Drive Enclosed gear
 Clutch: Own make Type disc operated by hand
 Advertised speeds, miles per hour: Low 2.69
 Intermediate none High 3.42 Reverse 2.52
 Drive wheels: Diameter 53 Face 12
 Lugs: Type Spade No. per wheel 54 Size 4.2"H x 3.7"
 Extension rims: Width 7" Seat Pressed steel
 Total weight as tested (with operator) 8373 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.16 pounds
 Oil: Mobiloil A To fill crankcase 1.50 gallons
 Additional amount used during test 19.25 gallons
 Mechanical lubricator Madison-Kipp Capacity 1 gallon
 Total number of hours of test 39

UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 162

REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged throughout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

In the advertising literature submitted with the specifications and application for test of this tractor we find no claims and statements which, in our opinion, are unreasonable or excessive.

The results of this test indicate that the rating of this tractor does not exceed the provisions of the tractor rating code of the American Society of Agricultural Engineers and the Society of Automotive Engineers.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 162 .

Lew Wallace
Engineer-in-Charge

E. E. Brackett

C. W. Smith

E. B. Lewis